

WHAT IS CLAIMED IS:

1. A method of health profiling an animal comprising:
obtaining genetic data of the animal, and health assessment data of the animal;
combining the genetic data or health assessment data with at least one of :
a. the neurotransmitter data relating to the temperament of the animal;
b. the neurotransmitter data relating to the longevity of the animal;
c. data assessing the bodily fluid and tissue immune stimulation reaction,
neoplastic or paraneoplastic change, or cellular inflammatory response of the
animal;
d. metabolic marker of the animal for inherited organ dysfunction or dysplasia;
e. a physiologic or genetic marker for autoimmune thyroiditis;
f. data assessing the presence of or susceptibility to mammary cancer of the
animal;
g. data assessing the integrity of immune surveillance mechanisms of the
animal;
h. data assessing the risk of inherited bleeding disease or disorder of the animal;
and

producing a report from these data, the report including an evaluation of health,
disease and disorder probabilities and longevity of the animal.

2. The method of claim 1, comprising the step of storing the report in a central
database processing resource.

3. The method of claim 2, including sending an access request message from the
remote user via a communications link, and the communications link is selectively a computer
network, preferably including the Internet, the access request being for obtaining the report from
the central database processing resource.

4. The method of claim 1, including the steps of communicating between a remote
user and the central database processing resource through a computer network, providing credit

card information of the remote user prior to providing the report to the remote user after charging a credit card for such data.

5. A method of health profiling an animal to determine characteristics related to the

5 temperament of the animal and comprising the steps of:

analyzing biological laboratory test data from a bodily fluid or a tissue of an animal, such test data being related to a neurotransmitter activity of the animal;

analyzing biological test data relating to a health assessment of the animal together with genetic data related to that animal; and

10 producing a report from these data, the report including an evaluation of the temperament of the animal.

6. The method of claim 5, including obtaining data related to at least one of the

15 value of serotonin, the gamma-aminobutyric acid (GABA), the glutamate, the dopamine, the glycine, the aspartate, the acetylcholine, the norepinephrine, the histamine, the substance P, the vasopressin, the vasoactive intestinal peptide, the neuropeptides of the animal.

7. The method of claim 5, including reporting the health profile of that animal to a

20 remote user.

8. A method of health profiling an animal to determine characteristics related to the immune stimulation reaction, or presence of neoplastic or paraneoplastic change, or cellular inflammatory response of the animal comprising the steps of:

5. analyzing biological laboratory test data from a bodily fluid or tissue of an animal, such test data being related to at least one of a cytokine, chemokine, or lymphocyte marker of the animal;

10. analyzing biological test data relating to a health assessment of the animal together with genetic data related to that animal; and

15. producing a report from these data, the report including an evaluation of the immune stimulation reaction, or presence of neoplastic or paraneoplastic change, or cellular inflammatory response of the animal;

9. The method of claim 8, including obtaining data related to at least one of the value of cell cytotoxicity markers, cytokine and chemokine levels, immunoglobulin levels, type and amount of lymphocyte subsets and lymphocyte markers, and markers of neoplastic or paraneoplastic change of the animal.

10. The method of claim 8, including reporting the health profile of that animal to a 20 remote user.

11. A method of health profiling an animal to determine characteristics related to
inherited organ dysfunction or dysplasia of the animal comprising the steps of:

analyzing biological laboratory test data from a bodily fluid or tissue of an animal,
such test data being related to a metabolic marker of the animal;

5 analyzing biological test data relating to a health assessment of the animal
together with genetic data related to that animal; and

producing a report from these data, the report including an evaluation of the
inherited organ dysfunction or dysplasia of the animal.

10 12. The method of claim 11, including obtaining data related to at least one of the
value of the methyl malonic acid, the fucose-containing cell metabolites, blood or urine urate or
uric acid metabolites, normoglycemic glycosuria, amino aciduria, mannosidase containing cell
metabolites, amyloid deposition in tissues, neuronal ceroid lipofuscin deposition, and deposition
of gangliosides and other lysosomal storage substrates of the animal.

15 13. The method of claim 11, including reporting the health profile of that animal to a
remote user.

14. A method of health profiling an animal to determine characteristics related to autoimmune thyroiditis of the animal comprising the steps of:

analyzing biological laboratory test data from a bodily fluid or tissue of an animal, such test data being related to a physiologic or genetic marker for thyroiditis in the animal;

analyzing biological test data relating to a health assessment of the animal together with genetic data related to that animal; and

producing a report from these data, the report including an evaluation of the thyroiditis condition of the animal.

15. The method of claim 14, including obtaining data related to at least one of the value of a comprehensive thyroid autoantibody test profile, DNA fingerprint (the gene map), and markers for immunoglobulin receptors on B-cells, T-cell receptors, and protein products of the major histocompatibility complex (MHC) genes (Class I and II allelic HLA, DLA or equivalent antigenic specificities) of the animal.

16. The method of claim 14, including reporting the health profile of that animal to a remote user.

17. A method of health profiling an animal to determine characteristics related to the presence of or susceptibility to mammary cancer in the animal comprising the steps of:

5 analyzing biological laboratory test data from a bodily fluid or tissue of an animal, such test data being related to a sex hormonal or a tissue inflammatory marker of mammary cancer;

10 analyzing biological test data relating to a health assessment of the animal together with genetic data related to that animal; and

15 producing a report from these data, the report including an evaluation of the presence of or susceptibility to mammary cancer in the animal.

18. The method of claim 17, including obtaining data related to at least one of the value of the estrogen (estradiol-17 β), estrogen receptors, interleukin (IL) 6, progesterone, and progesterone receptors of the animal.

19. The method of claim 17, including reporting the health profile of that animal to a remote user.

20 20. A method of health profiling an animal to determine characteristics related to the tissue environment of the eye and brain of the animal, which are sites protected from the normal immunologic surveillance mechanisms, and comprising the steps of:

25 analyzing biological laboratory test data from a bodily fluid or tissue of an animal, such test data being related to the soluble and cellular immune inflammatory response mediators of the animal;

25 analyzing biological test data relating to a health assessment of the animal together with genetic data related to that animal; and

30 producing a report from these data, the report including an evaluation of the immune surveillance mechanisms of the animal.

21. The method of claim 20, including obtaining data related to at least one of the value of the soluble and cellular immune inflammatory response mediators selectively at

least one of the cytokine levels, chemokine levels, immunoglobulin levels, or lymphocyte subset markers.

22. The method of claim 20, including reporting the health profile of that animal to a
5 remote user.

23. A method of health profiling an animal to determine characteristics related to the inherited tendency to bleed excessively are determined, and comprising the steps of:

10 analyzing biological laboratory test data from a bodily fluid or tissue of an animal, such test data being related to the inherited tendency of the animal to bleed excessively;

analyzing biological test data relating to a health assessment of the animal together with genetic data related to that animal; and

15 producing a report from these data, the report including an evaluation of the hemostatic and coagulation function of the animal.

24. The method of claim 23, including obtaining data related to at least one of the value of the platelet count, platelet size, platelet morphology ; prothrombin time; partial thromboplastin time; fibrinogen; fibrin-fibrinogen degradation products; platelet function tests; von Willebrand factor antigen and multimer analysis; specific coagulation factor analyses; fibrinolytic tests; anti-thrombin III test; circulating anticoagulant tests; platelet factors 3 and 4 ; protein C; protein S; kinin-kinogen tests; prekallikrein test; alpha₁-antitrypsin assay; alpha₂-macroglobulin assay; C₁ esterase inactivator assay; anti-platelet antibody, and anti-megakaryocyte antibody tests.

25. The method of claim 23, including reporting the health profile of that animal to a
remote user.